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θ being a small arc, the powers of which above the third may be neglected, and vanishing twice during each oscillation.

“From equation (8) it is easy to see, that the plane of oscillation undergoes a periodic variation in azimuth; in consequence of which the projection of the centre of oscillation of the pendulum on the horizon will describe a curve resembling a figure of eight, in which, if the pendulum be in the meridian, the motion in the northern loop is retrograde; and in the southern loop progressive.

“The variation in azimuth produced by the second term of equation (7) will be insensible, unless θ become nearly equal to π , in which case the change in azimuth will become indefinitely great; for, integrating (7), we find, the initial motion being in the meridian,

$$\frac{d\phi}{dt} = k \sin \lambda - k \cos \lambda \frac{\theta - \sin \theta \cos \theta}{\sin^3 \theta}. \quad (9)$$

If in this equation θ be equal to π , the second term will be infinite and negative, denoting that the plane of vibration swings round suddenly to the west. This result is evident without analysis; for if the pendulum be started in the meridian, so as to pass the lowest point with a velocity due to twice its length, it will reach the top of the circle without velocity, and fall suddenly to the west, in the prime vertical.

“If the pendulum were to perform a complete revolution with a high velocity, the time of revolution in azimuth of the plane of its motion would tend to the limit $23^h 56^m$; but when the motion is oscillatory, the theoretical time of revolution in azimuth will $23^h 56^m \times \text{cosec } \lambda$, as has been proved for small arcs of vibration by M. Binet. *Comptes Rendus de l'Acad. des Sciences*, Feb. 17, 1851.”]

Professor Allman read a notice of the emission of light by *Anurophorus fimetareus* Nicholi (*Leptura fimetarea*, Linn.) During a walk over the Hill of Howth, near Dublin, on a

dark night in February last, he was struck with a luminous appearance in the earth, when disturbed to the depth of three or four inches; the light proceeded from numerous distinct points, and lasted for more than a minute after its first appearance. On carrying home some of the phosphorescent earth, Dr. Allman was enabled to trace the phenomenon in question to the presence of numerous living individuals of *Anurophorus fimetareus*, from each of which there proceeded in the dark a faint but very evident emanation of light. Specimens of the insect preserved alive in a glass phial continued for many nights to exhibit this beautiful phenomenon, which was also witnessed by Dr. Stokes and Mr. Haliday, as well as by numerous other friends, whose attention was directed to it by Dr. Allman. The light could not be traced to any definite point in the insect. The *Anurophorus* was very abundant on the hill, and subsequent observations proved, that the dark peaty soil which abounds in some places on Howth was almost the only part of this district from which it could be affirmed to be absent.

MAY 12TH, 1851.

JOHN ANSTER, LL. D., VICE-PRESIDENT,
in the Chair.

FRANCIS CODD, Esq.; Rev. Johnston Brydges Sayers; Vincent Scully, Esq.; and Robert D. Lyons, Esq., M. B.; were elected Members of the Academy.

The special thanks of the Academy were given to Pierce Morton, Esq., for his donation of an old manuscript copy of the Domesday Book, in seven volumes folio, formerly the property of Dr. Charles Morton.

A stone ball, found in the Lower Castle Yard, was presented to the Museum by Captain Williams; and the episcopal seals of Dr. Elrington, successively Bishop of Limerick, and